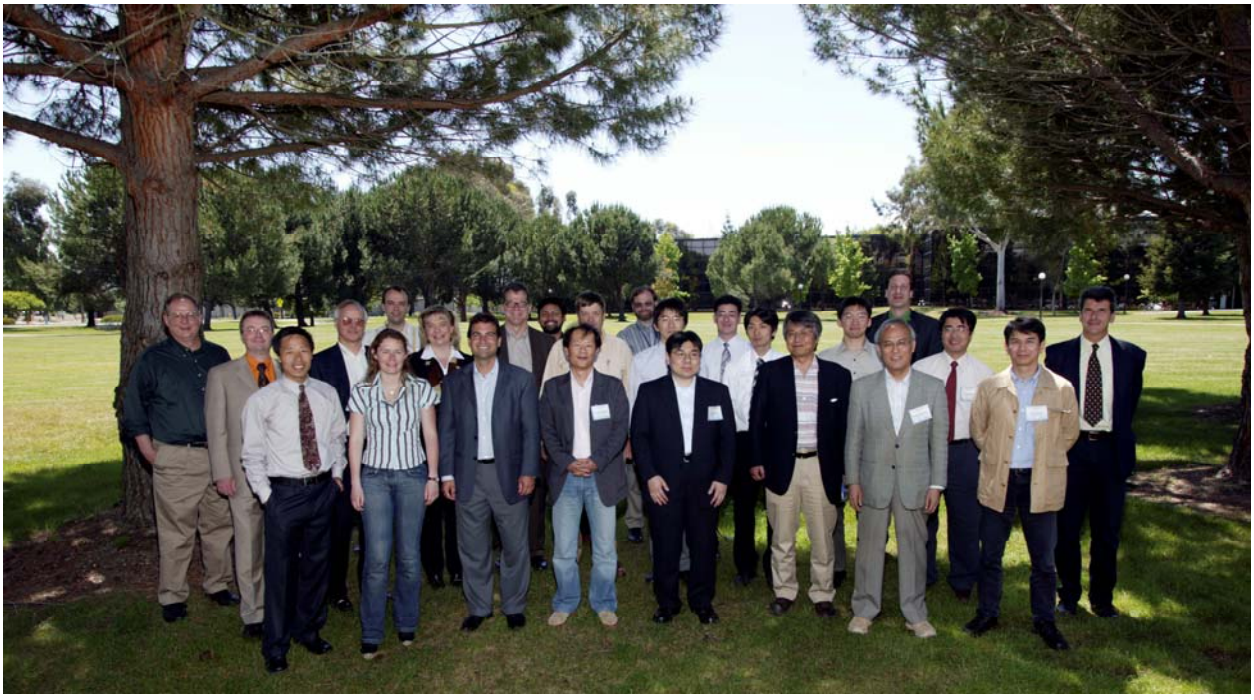
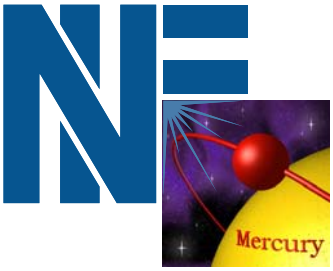
UCRL-PRES-224210

3rd International Workshop on High Energy Class Diode Pumped Solid State Lasers

HEC-DPSSL



Photon Science and Applications
National Ignition Facility Programs Directorate
Lawrence Livermore National Laboratory
Livermore, California USA
May 17-19, 2006



Wednesday, May 17, 2006			
Time	**Title**	**Speaker**	**Affiliation**
8:00	Badging at the West Gate	All	
8:45	Breakfast	All	
Session 1: Introduction & Laser Program Presentations (open to all LLNL personnel – Building 482 auditorium)			
9:00	Welcome	Chris Barty	LLNL, United States
9:10	HAPL Program Overview	Camille Bibeau	LLNL, United States
9:30	Mercury Project Overview	Andy Bayramian	LLNL, United States
10:00	POLARIS – A Status Report	Joachim Hein	IOQ, Freidrich-Schiller University, Germany
10:30	LUCIA Current Status	Jean-Christophe Chanteloup	LULI, Ecole Polytechnique, France
11:00	Recent Progress of the HALNA DPSSL Driver Development	Toshiyuki Kawashima	ILE, Osaka University, Japan
11:30	Development of the Laboratory for Advanced Laser-Target Interactions (LALTI) for Applications in High Energy Density Science and Defense	Enam Ahmed Chowdhury	Ohio State University, United States
12:00	Reception – Building 482 Foyer	All	
13:30	The National Ignition Facility	Ed Moses	LLNL, United States
14:00	NIF Tour		
15:00	Titan Facility Tour – Building 174		
15:45	Heat Capacity Solid State Laser (HCSSL) Tour – Building 391		
16:15	Laser Peening tour – Building 391		
16:30	Mercury Lab and Front End Tour – Building 381, Room 1547		
17:30	No Host Dinner at Wente Winery, $63 per person (not including wine/beer)		
Thursday, May 18, 2006			
Time	**Title**	**Speaker**	**Affiliation**
8:00	Breakfast - Building 482, Room 1053	All	
Session 2: Laser Architectures – Building 482, Room 1053			
8:30	Lucia Energy Extraction: Laser Fluence and Adaptive Optics	Stephanie Le Moal	LULI, Ecole Polytechnique, France
9:00	Development of High Average Power Nd:YAG Laser System Using the SBS-Phase Conjugation Mirror.	Hidetsugu Yoshida	ILE, Osaka University, Japan
9:30	New POLARIS Facility	Ragnar Bödefeld	IOQ, Freidrich-Schiller University, Germany
10:00	Efficient Ceramic Nd:Cr:YAG Split-Disk Laser Amplifier	Hajime Okada	ILE, Osaka University, Japan
10 Min Break			
Session 3: Modeling And Future Design - Building 482, Room 1053			
10:40	Overview of Coherent's High Power CW and QCW Diode Monolithic Stack Technology	Mark Mondry	Coherent, Inc., United States
11:00	Solid State Laser Design for Inertial Confinement Fusion: Diode Pumped Yb Doped Ceramic Laser	Bruno Le Garrec	CEA, France
11:30	Concepts for Reducing Costs of DPSSL Drivers For IFE	Al Erlandson	LLNL, United States
12:00	Conceptual Design of IFE Laser Reactor Driver Using Diode-Pumped Cryogenic Yb:YAG Ceramics	Junji Kawanaka	ILE, Osaka University, Japan

12:30	Lunch	All	
13:45	Group Picture In Front Of B482	All	
Session 4: Materials And Laser Damage Issues - Building 482, Room 1053			
14:00	New Laser Material Bismuth-Doped Silica for LD-Pumped Ultra Short Pulse Laser at 1.2-Micron Wavelength	Masahiro Nakatsuka	ILE, Osaka University, Japan
14:30	Frequency Conversion and Switching Technologies	Chris Ebbers	LLNL, United States
15:00	Advanced Materials for Fusion Lasers	Kathleen Schaffers	LLNL, United States
15:30	Reliability of Optical Components for HEC DPSSLS	Zhi Liao	LLNL, United States
10 Min Break			
Session 5: Front End Technologies - Building 482, Room 1053			
16:10	Environmentally-Stable Mode-Locked Yb Fiber Laser Composed of All Polarization Maintaining Fiber With a Broad Tuning Range	Kazuhiko Sumimura	ILE, Osaka University, Japan
16:40	Lucia New Front-End	Stephanie Le Moal	LULI, Ecole Polytechnique, France
17:10	A Compact Multi-Loop Stretcher for OPCPA	Yasuki Takeuchi	ILE, Osaka University, Japan
17:40	Picosecond Regenerative Amplifier with Cryogenically Cooled Yb: YAG	Shigeki Tokita	ILE, Osaka University, Japan
18:10	Dinner – LLNL Host	All	
Friday, May 19, 2006			
Time	**Title**	**Speaker**	**Affiliation**
8:00	Breakfast - Building 482, Room 1053		
Session 6: Diagnostics / Target Development - Building 482, Room 1053			
8:30	Targets for Rep-Rated Lasers	Rich Stephens	General Atomics, United States
9:00	Capabilities for Repetition Rate Streak Cameras	Paul Jaanimagi	Sydor Instruments Inc., United States
10 Min Break			
Session 7: HEC DPSSL Applications - Building 482, Room 1053			
9:30	Pulse Compression from 2,2 Ns to 150 Fs	Joachim Hein	IOQ, Freidrich-Schiller University, Germany
10:00	Plan for a High Repetition Rate Target Shooting Facility Using the Mercury Laser	John Caird	LLNL, United States
10:30	Amplification of Broadband Light Source for OPCPA	Kanade Ogawa	ILE, Osaka University, Japan
11:00	High Repetition High Average Power Nd:YAG Laser System for EUV Lithography	Hisanori Fujita	ILE, Osaka University, Japan
11:30	Lucia Short Pulse Applications	Jean-Christophe Chanteloup	LULI, Ecole Polytechnique, France
12:00	Short pulse applications for HEC DPSSLs	Chris Barty	LLNL, United States
12:30	Lunch	All	
	- Planning for Next Workshop	All	
	- Closing Remarks	Andy Bayramian	LLNL, United States
14:00 – 17:00	No Host Wine Tasting at Wente Winery	All	